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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,520

03/24/2004

Yoichi Oikawa

1448.1054

3372

21171

7590

04/07/2006

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

EL SHAMMAA, MARY A

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/807,520	OIKAWA ET AL.	
	Examiner	Art Unit	
	Mary A. El-Shammaa	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (US 5,848,210) in view of Sugiyama et al. (US 6,873,748 B2).

Regarding claims 1, 13, and 17, Kimura discloses in Figs. 3 and 4 an optical module device comprising an optical device (2) with a plurality of electrodes (1) disposed at predetermined positions; a substrate (6) disposed oppositely to the optical and with wiring patterns for connecting the electrodes; and a wiring (5) that connects the electrodes to the wiring patterns (*See* Abstract; col. 2, lines 15-39; col. 3, line 64 through col. 4, line 58). Kimura does not disclose a pair of side wall plates that hold the substrate on the optical device. Sugiyama et al. discloses in Fig. 1(a) a pair of side wall plates (5-1 and 5-2) that hold a substrate on an optical device (col. 2, line 31 through col. 3, line 58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the side wall plates taught by Sugiyama et al. in the device of Kimura because Sugiyama et al. teaches the structure of an optical device having a plurality of electrode, a substrate, and a pair of side wall plates to secure the structure. The motivation to combine is that the side wall plates taught by Sugiyama et al. provides a more secure and stable structure.

Regarding claims 3 and 4, Kimura discloses in Figs. 3 and 4 a heating/cooling unit (2,4) that performs the a function selected from a group consisting of heating the optical device using self-generated heat and cooling the optical device by absorbing heat; and a soaking unit that uniformly transmits heat generated by the heating/cooling unit to an entire surface of the optical device, wherein the side wall plates are arranged on the soaking unit (col. 2, lines 15-39; col. 3, line 64 through col. 4, line 58).

Regarding claim 5, Kimura discloses in Fig. 3 at least one opening being formed on the substrate (6) for passing the wiring (5) so that the electrodes can be connected to the wiring patterns.

Regarding claims 7 and 8, Kimura discloses the heating/cooling unit being selected from a group consisting of a heater and a Peltier element (col. 2, lines 15-39; col. 3, line 64 through col. 4, line 58).

Regarding claims 9-11, Kimura discloses a waveguide, but is silent as to the details of the waveguide. Sugiyama et al. discloses the optical device being an acousto-optic tunable optical filter used for a waveguide type optical device and wherein the substrate and side wall plates are made of material having relatively low heat conductivity (col. 2, lines 40-55; col. 3, line 1 through col. 4, line 33).

Regarding claims 14-15, Kimura is silent as to the details of the wiring patterns. Sugiyama et al. discloses a lead-through block with wiring patterns provided on a side surface of the substrate for leading through the wiring patterns formed on the substrate and leads with free communication with the relevant wiring patterns; a wiring that connects the wiring patterns to the wiring patterns; and wherein the wiring pattern includes a signal line for supplying specified

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signals and a ground line in communication with the ground (col. 2, line 31 through col. 4, line 33; col. 5, line 34 through col. 6, line 13).

Regarding claims 18 and 19, Sugiyama et al. discloses a bridge substrate supported by the side wall plates wherein the substrate is housed between the side wall plates along an upper portion of the soaking unit and below the bridge substrate and wherein the pair of side wall plates holds the bridge substrate at a predetermined vertical distance from the substrate to provide heat resistance (col. 5, line 34 through col. 6, line 13; col. 12, lines 19-67; col. 13, lines 43-52).

Regarding claim 6, Kimura in view of Sugiyama et al. discloses the claimed invention except for the substrate including a plurality of substrates. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the substrate include a plurality of substrates, since it has been held that a mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claims 12 and 16, Kimura in view of Sugiyama et al. discloses the claimed invention except for the side wall plates being made of ceramics and the wiring patterns being selected from a groups consisting of a microstrip, a grounded coplanar, and a coplanar. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the side wall plates being made of ceramics and the wiring patterns being selected from a groups consisting of a microstrip, a grounded coplanar, and a coplanar. , since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

Response to Arguments

Applicant's arguments with respect to claims 1 and 3-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary A. El-Shammaa whose telephone number is 571.272.2469. The examiner can normally be reached on M-F (8:30am-5:00pm).

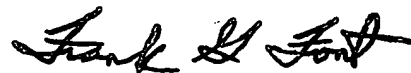
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571.272.2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAE

April 3, 2006



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800